GOVERNMENT/INDUSTRY AERONAUTICAL CHARTING FORUM

Instrument Procedures Subgroup April 29-30, 1996 RECOMMENDATION DOCUMENT

FAA Control # 96-01-155

SUBJECT: Operational Status for OROCAs and Implementation of GPS TAAs.

BACKGROUND/DISCUSSION: Now that Off-Route Obstruction Clearance Altitudes (OROCAS) are being published in the United States, they need to be officially anointed by the FAA as meeting the published IFR altitude requirements for purposes of FAR 91.177. There is a question whether such altitudes can legally be used at the present time by commercial carriers, because of lack of operations specifications authorization. Further, GPS Terminal Arrival Areas charting criteria need to be implemented as a complimentary device to OROCAs for non-radar operations. With the proliferation of GPS SIAPs, a dramatic increase in non-radar IFR terminal areas is occurring in the U.S. The OROCA/TAA concept will take full advantage of GPS technology by providing route and arrival operational flexibility with the full protection of charted operational altitudes at all times.

RECOMMENDATION: AFS-420 be tasked to coordinate with AFS-440 and AFS-200 the implementation of TAA charting criteria for GPS SIAPs, and the implementation of requirement directives to cause OROCAs to be approved instrument altitudes for commercial operations.

COMMENTS: This recommendation affects Handbook 8260.19C, "Flight Procedures and Airspace," air carrier directives, and relevant directive information in the Aeronautical Information Manual.

Submitted by Captain Tom Young, Chairman Charting and Instrument Procedures Committee

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INITIAL DISCUSSION (Meeting 96-01): Tom Young presented the issue on behalf of ALPA. Bill Mosley, AT0-110, stated that his office has already started work on this issue and that they have sent a letter to AFS-400 requesting approval to use the OROCA for IFR obstruction clearance. Air Traffic is still studying the "radar required" for off-route RNAV issue. Tom Young questioned whether the OROCA can guarantee communications (required for MIA). This subject will be discussed at the next Satellite Procedures Implementation Team (SPIT) meeting. The GPS TAA issue is being addressed separately in item 95-01-140. ACTION: AFS-420 and ATO-110.

MEETING 96-02: Bill Hammett, AFS-420, stated that AFS has approved using the OROCA to satisfy IFR obstacle clearance requirements with provisions that air traffic include the OROCA in the Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) program under Order 7400.2. Bill Mosley, ATO-120, stated that his office is now working with AFS-400 to resolve supplemental navigation *issues* (see *issue* 96-01-156 for additional data). Wally Roberts (ALPA) noted that there are OROCA's in uncontrolled airspace. Bill Mosley commented that airspace issues would be considered prior to air traffic implementation. ACTION: ATO-110/120.

<u>MEETING 97-01</u>: Bill Mosley, ATO-120, reported that his office is still working the issue in consort with ATO-110; however, there has been no further progress on this issue pending resolution of the supplemental navigation status of GPS.

ACTION: ATO-110/120.

MEETING 97-02: At the 97-1 meeting, Bill Mosley, ATO-120, reported that there had been no further progress on this issue pending resolution of the supplemental navigation status of GPS. An ATO-120 representative was not present at the meeting; therefore, no further update was provided. <u>ACTION</u>: ATO-120.

<u>MEETING 98-01</u>: An Air traffic, ATO-120, representative was not available for the meeting; therefore, no report was provided. Paul Best, AFS-400 (NAS NRS), did provide a briefing on new GPS use in the Gulf of Mexico. <u>ACTION: ATO-120</u>.

MEETING 98-02: Bill Mosley, ATO-120, has been working this issue. Bill Hammett, AFS-420 consultant, briefed that Flight Standards had approved using the OROCA for obstruction clearance provided continuous evaluation was incorporated under the OE program (Order 7400.2). Paul Best noted that the OROCA was intended for pilot use, not controller use. Bill Mosley noted that he was working with a group to further sectorize the OROCA into 1/2° sectors. Still to be resolved are GPS sole/supplemental navigation means, airspace and communications requirements, and controller procedures. Bill Mosley will continue working the issue. ACTION: ATO-120.

MEETING 99-01: Bill Mosley, ATO-120 briefed that there has been no progress on this issue. He is working with TG-133 to further sectorize the OROCA into 1/2° sectors. The "radar required" issue is still being staffed within ATO. Wally Roberts, ALPA, brought up the controlled airspace issue, especially in the westernmost U.S. Bill briefed that airspace issues are also being addressed. Bill Hammett, AFS-420, noted that the AFS approval to use the OROCA for obstruction clearance was dependent on incorporating the OROCA into the OE program. Informal contacts within ATA-400 organization indicate that this is not being considered in the re-write of Order 7400.2. Bill Mosley will coordinate this with ATA-400. ACTION: ATO-120.

MEETING 99-02: Bill Hammett, AFS-420, suggested that due to inactivity on this issue, (3.5 years with no change in status) it should be dropped from the Instrument Procedures Subgroup. He further recommended that, since resolution lies within Air Traffic (ATO-100 and ATA-400), the issue be worked through ATPAC. Bill also noted that the AFS approval to use the OROCA for obstruction clearance was dependent on incorporating the OROCA into the OE program. Informal coordination indicates that this was not included in the draft re-write of Order 7400.2. Tom Meyer, ATP-402 (AMTI), stated that ATP-402 and ATA-400 are actively working the issue through the SOIT and internally through the FAA ATSOIT. ATA-400 is addressing rulemaking changes to address controlled airspace issues and ATP-100 is working radar requirements relating to OROCA use. The group recommended that a representative of Air Traffic brief the next meeting of the ACF Instrument Procedures Subgroup on the status of the issue thus far. Tom agreed to take the message to the ATSOIT. ACTION: ATP-402.

MEETING 00-01: Tom Meyer, ATP-402 (AMTI), briefed the issue. The ATSOIT is investigating using the OROCA; however, the ATSOIT is concentrating on the development of an RNAV MOCA-like altitude as the primary altitude for direct/RNAV clearances. It is believed that an altitude based on a one-degree square is often too high to be of value. Other initiatives being investigated include; a) developing a MOCA/R concept for RNAV routes not dependent on NAVAID's; b) consideration of incorporating the OROCA into Order 7400.2 for evaluation and use for waypoint-to-waypoint routes; c) using RNAV to fly preferred routes and associated MEA's in place today; and, d) consideration of incorporating RNAV routes into Part 95. Randy Kenagy, AOPA, requested the OROCA remain a prime consideration as an IFR altitude for RNAV (especially GPS) off route clearances. Tom indicated it would remain on the table as a consideration. ACTION: ATP-402.

MEETING 00-02: An Air Traffic (ATP-402) representative was not available to discuss the issue; therefore, the issue is continued to the next meeting. Editor's Note: ATP-402 provided the following status update on the issue after the meeting for inclusion in the minutes: The use of the OROCA was discussed during the preliminary discussions leading to the development of a Notice of Proposed Rulemaking (NPRM) updating 14 CFR for area navigation. This discussion included the development of an MOCA for RNAV routes, independent of the NAVAID. The draft NPRM is under development by a contractor working for AFS-400. The first draft is scheduled for completion on December 15, 2000. Advanced Navigation Routes (ANR) eliminating the requirement to over fly source referenced (ground-based) navigation aids are currently under development by the ATSOIT. Initial publication of ANR's will occur in the Airport/Facilities Digest (AFD). The ACF RNAV Transition Working Group has taken this issue as an action item "RNAV-00-01-06; RNAV Routes and MEA on En Route Charts". ACTION: ATP-402.

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<u>MEETING 01-01</u>: Gary Powell, ATP-104, briefed that there has been little progress on this issue. A contractor is working the rulemaking progress. There was a general discussion over the OROCA, its original intent, and applicability for off-route, non-radar, RNAV IFR flight. Gary requested a copy of the original issue paper and Bill agreed to provide it. <u>ACTION: ATP-104</u>.